



**Property Casualty Insurers  
Association of America**

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PROPERTY CASUALTY INSURERS  
ASSOCIATION OF AMERICA

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June 30, 2004

Docket Management Facility  
U.S. Department of Transportation  
400 Seventh Street, S.W.  
Nassif Building (Room PL – 401)  
Washington, DC 20590-001

RE: **49 CFR Part 571 {Docket No. NHTSA-2003-15715} – / 7**  
**RIN 2127-AH73**

Dear Sir or Madam:

In the captioned Request for Comments, the National Highway Traffic Safety Administration (NHTSA) advised that it is considering whether to propose a high speed frontal offset crash test requirement as an element of the federal motor vehicle safety standards. The Property Casualty Insurers Association of America (PCI) supports such action because it affirms what frontal offset crash testing has achieved in a number of industrialized nations, by a number of international consumer test organizations, and in the U.S. as the result of testing conducted by the Insurance Institute for Highway Safety (IIHS). Where conducted, frontal offset crash testing generates valuable information that consumers can use to assess crashworthiness when shopping for automobiles.

Frontal offset crash testing simulates a collision scenario that current federal crash testing fails to address. In addition, the frontal offset crash is a collision scenario that is at least as common as the full-frontal head-on crash configuration used in many existing federal safety standards. The purpose of this letter is twofold: 1) to encourage the agency to move forward; and 2) to proceed in a manner that leverages IIHS and other testing and related marketplace responses. Our letter will elaborate on these points.

PCI is the premier national trade association for property/casualty insurance companies here in the U.S. PCI represents over 1,000 insurance firms and includes the largest national auto insurance companies as well as the smallest single-state, regional insurance writers. Our members write \$154 billion in property/casualty insurance premiums and they account for more than 48 percent of the personal auto insurance coverage underwritten in the U.S. PCI affiliated insurers write personal as well as commercial auto insurance policies in all 50 states. PCI represents the broadest cross-section of insurers of any national trade association and, therefore, has a unique perspective on highway and vehicle safety. Our organization supports public policy actions that encourage safer motor vehicles.

## **Benefits of Crash Testing**

Federal motor vehicle safety standards are factors in motor vehicle engineering and design decisions. The engineering and design decisions, in turn, can influence the crash performance of motor vehicles and, indirectly, the frequency and severity of bodily injuries arising out of the use of such vehicles. If NHTSA were to implement a frontal-offset-crash-test standard, it could reduce these frequency and severity factors and reinforce the frontal offset testing conducted by IIHS and others for nearly 10 years. Such an achievement would inure to the benefit of motor vehicle crash victims, the health care sector, insurance companies and ultimately insurance consumers.

As the agency is aware, the IIHS has been evaluating the crashworthiness of passenger vehicles based on their performance in frontal offset crash testing since 1995. According to the February 7, 2004, edition of the "*Status Report*" by IIHS, the Institute has confirmed the value of creating crash test ratings based on how well vehicles perform in such tests. The ratings of good, acceptable, marginal, or poor are based on 40 mph offset tests in which the driver side of each vehicle strikes a deformable barrier. Their new study relates crash test ratings to fatality risk in real-world crashes, and IIHS researchers examined 12 years of records from the Fatality Analysis Reporting System

In the most relevant comparison, IIHS researchers compared fatality risks in crashes in which two vehicles similar in type hit head on (car to car, pickup to pickup, etc.). After controlling for differences in vehicle weight, driver age and gender, and other factors, the researchers found that drivers of vehicles with "good" ratings were about 74 percent less likely to die than drivers of vehicles rated "poor." The drivers of vehicles rated "acceptable" or "marginal" were about 45 percent less likely to die than drivers of vehicles rated "poor." As noted in the report, consumers who incorporate crash test ratings into their vehicle purchasing decisions will as a general rule buy cars that provide better occupant protection. That bodes well for the reduction of motor vehicle injuries and their attendant costs.

In addition to generating information that can help consumers differentiate between automobile make and models on the basis of their crashworthiness and injury protection proficiency, crash testing can induce socially responsible designs from the manufacturing sector. Since IIHS initiated its regimen of frontal offset crash testing, the safety performance of many makes and models has improved. A poor crash test outcome frequently leads a manufacturer to address the shortcoming in the next generation version of the same vehicle. Subsequent testing by IIHS of the redesigned vehicle usually reveals marked improvements in a model's ability to absorb and distribute crash energy. Conversely, a favorable crash test outcome can trigger an increase in the sale of that vehicle model/type and thereafter encourage greater sensitivity by manufacturers to safety design.

## **Strengthening the Federal Crash Test Standard**

PCI members have long supported the IIHS because of the inherent benefits of crash-testing in general but more importantly because the IIHS crash testing (frontal offset) replicates one of the more frequent, injury-producing types of collisions between motor vehicles. As has become apparent over the last 20 years, vehicle purchase decisions are influenced more than ever by safety considerations. Motorists are demanding state-of-the-art safety performance when they buy automobiles. In our view, any action NHTSA contemplates on offset crash testing

standards should lock the vehicle design improvements achieved by IIHS and other testing organization into the federal motor vehicle safety standards.

As NHTSA noted in its report to Congress on the prospect of establishing a federal standard for frontal offset crash testing<sup>1</sup>, the current Federal Motor Vehicle Safety Standard (FMVSS) No. 208 governing occupant crash protection is most effective in preventing head, femur and chest injuries and fatalities. It does not directly address lower limb and neck injuries. Based on the conclusions reached by NHTSA in its report, PCI believes that an implementation of a frontal offset crash test standard accompanied by the appropriate re-calibration of the test dummy injury response criteria could help reduce those injury outcomes. The economic implications are significant. It has been reported in a new publication<sup>2</sup> on whiplash that State Farm estimates that the annual cost in the U.S. of such injuries is between \$13-18 billion. In a review<sup>3</sup> of 72,000 auto injury closed claims, the Insurance Research Council (IRC) found that the most frequently reported injury in 2002 by bodily injury liability and personal injury protection insurance claimants was a neck sprain or strain, followed by a back sprain or strain. Sixty-six percent of bodily injury liability coverage claimants reported neck sprains or strains, while 56 percent of the personal injury protection claimants experienced a neck sprain. This claim trend is not a current phenomenon either. Neck injuries were cited as the most frequent auto-related crash injury by insurance claimants in similar closed claim samplings in 1992 and 1997 conducted by the IRC.

NHTSA anticipates that motor vehicle manufacturers may respond to a standard on frontal offset crash testing by strengthening the front ends of vehicles. If that approach were followed, the agency suggests that this could lead to increased "aggressivity" in crashes, resulting in potentially offsetting safety disbenefits for occupants of struck vehicles. The PCI commends NHTSA for being aware of a potential trade-off associated with more rigorous crash testing. Like commentators from the manufacturer sector, we trust that NHTSA will address this factor in the federal standard. For instance, it should allow adequate lead time to facilitate new strategies that reduce the potential for lower extremity injuries in frontal crashes yet minimize offsetting disbenefits in crash performance such as increased vehicle aggressivity. Crash-testing standards should create an incentive for the most optimum design responses possible.

It is our understanding that some stakeholders in the motor vehicle manufacturing sector have initiated a dialogue with the federal government in pursuit of more market-based solutions to the crash compatibility and vehicle aggressivity concern. This activity could affect the future design of sport utility vehicles (SUVs) and the light truck and van (LTV) vehicle class. One of the objectives of that dialogue is to explore strategies to make such vehicles less lethal when they collide with other lighter, passenger cars. Because of their physical mass, height and truck frame design, SUVs and LTVs frequently inflict greater physical damage and injury when involved in a multi-vehicle crash where the second vehicle is a passenger car. According to the latest new vehicle sales data, SUVs or LTVs account for approximately 53 percent of all new, private passenger automobiles sold in the U.S. It is heartening to learn that there may be progress ahead in the design of small trucks and cross-over vehicles so as to mitigate the greater injury threat generated by so-called mismatch crashes, i.e., collisions involving light

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<sup>1</sup> National Highway Traffic Safety Administration, U.S. Department of Transportation, "Report to Congress: Status Report on Establishing a Federal Motor Vehicle Safety Standard for Frontal Offset Crash Testing" (April 1997).

<sup>2</sup> Andrew Malleson, "Whiplash and Other Useful Illnesses" (McGill-Queen's University Press 2002).

<sup>3</sup> Insurance Research Council, Malvern, Pennsylvania, "Auto Injury Insurance Claims: Countrywide Patterns in Treatment, Cost, and Compensation" pp. 27-29 (December 2003).

trucks and cars. PCI supports any actions the agency can take to encourage constructive marketplace responses to the crash implications of our changing U.S. vehicle fleet.

## Conclusion

PCI commends NHTSA for moving forward in the quest to adopt a crash test standard that a number of industrialized nations have seen fit to embrace. We hope that NHTSA's action will build on and reinforce the results achieved through the frontal offset testing conducted by IIHS. While applauding the government interest to improve the level of occupant protection available to motorists in America, PCI also appreciates that your agency must take into consideration the long-term effects of its rulemakings. For this reason, PCI urges NHTSA to craft a rule that compliments ongoing crash testing in the private sector and encourages voluntary market innovation and the optimum design responses.

We appreciate the opportunity to offer the views of our trade group, an organization whose client companies underwrite much of the auto insurance marketed in the U.S. and are involved in paying claims arising out of motor vehicle crashes on a daily basis. The PCI looks forward to continuing to work with the agency to improve federal motor vehicle safety standards. For clarification, or if PCI can be of assistance, please contact Terry Tyrpin at [terry.tyrpin@pciaa.net](mailto:terry.tyrpin@pciaa.net) or 847-553-3656.

Yours respectfully,

A handwritten signature in black ink, appearing to read "Terry E. Tyrpin". The signature is fluid and cursive, with a large initial "T" and "E".

Terry E. Tyrpin  
Senior Vice President  
Personal Lines and Research